SOUTHWEST WASHINGTON HEALTH DISTRICT

IN THE SWIM

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Pools pose rising risk

SWIMMING POOLS PUT RISING NUMBER OF AMERICANS AT RISK FOR DIARRHEA

November 14, 2002
Seth Borenstein, Knight-Ridder Tribune

DENVER – Two yet-to-be released U.S. federal studies were cited as finding that swimming pools are giving people diarrhea and putting more Americans at risk of contracting the illness.

The story says that the U.S. Centers for Disease Control and Prevention will announce November 21 that the number of U.S. swimming-related outbreaks of illness caused by the parasite Cryptosporidium increased tenfold from 1990 to 2000.

Americans who swim in pools are 10.6 times more likely to contract the parasite than those who do not, according to preliminary results from another CDC study. While neither study has been published yet, epidemiologist Michael Beach let scientists peek at the date Wednesday at the American Society of Tropical Medicine and Hygiene convention in Denver. Beach was cited as saying that in the past two years more than 80 percent of the disease outbreaks from swimming pools have been due to the chlorine-resistant strain of Crypto.

The parasite is spread through feces. The biggest culprits behind its presence in swimming pools are children who are not yet potty-trained. Beach was quoted as saying, "A single fecal accident in one of these major water parks is plenty to contaminate millions of gallons of water. You only have to swallow a mouthful of water or two to get contaminated."

But pool contamination is due to more than just diapers. Beach was further cited as saying that most people don't cleanse themselves sufficiently after bowel movements, which can add up to 2 to 3 pounds of feces a day in the average water park.

Keep toddlers who are not yet toilet-trained out of the pool

Inside this issue:

The latest statistics on the disease, for 1999 and 2000, will be published next week; they show "a very sharp increase over the past two years" in the number of Crypto outbreaks from recreational swimming, Beach said. Because 18 percent of the people who are ill with diarrhea continue to swim, the outbreak often resurfaces soon after swimming pools are drained and refilled, Beach said.

The story says that preliminary results of a risk analysis of swimming show that people who use kiddy pools have a 10.7 times higher risk of contracting Crypto than those who do not swim. The risk is 10.6 times higher for swimmers in regular pools, 2.4 times higher for ocean swimmers and 1.7 times higher for lake swimmers.

Better filtration and disinfectant technology geared for swimming pools is needed, Beach said. Until then, the key is public education—telling people not to swim if they have diarrhea and trying to keep toddlers from soiling pools.

For more information, check out the CDC's Healthy Swimming Web site: www.cdc.gov/healthyswimming.

Did You Know?

- A single fecal accident in a major water park can contaminate millions of gallons of water
- Americans who swim in pools are 10.6 times more likely to contract the diarrhea "bug" than those who do not
- 18% of people with diarrhea continue to swim in commercial pools

Water temperature: health impacts
How to check it accurately – "real life" experiences

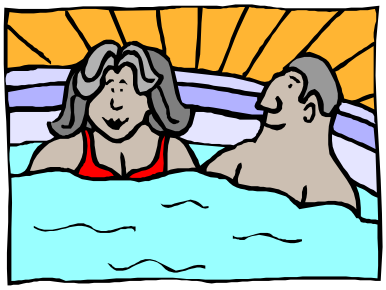
Physiological effects of being in an environment greater than normal body temperature: water or air.

Whole books have been written on this subject. K.C. Parson's book *Human Thermal Environments*, published in 1993, is a good example. Here are a few "fast facts" from it about body temperature regulation relevant to spa operators and users:

- ✓ A dynamic equilibrium exists between the human body and the external environment as the body automatically tries to maintain an internal temperature near 98.6°F.
- ✓ If the body cannot lose heat to the environment, the heat is stored in the body.
- ✓ If the heat is stored, the body's internal temperature will rise about 1.8°F every hour.
- ✓ The risk of collapse is high when the body's internal temperature goes beyond 101–102°F. Heat stroke is more likely when the body's internal temperature exceeds 105–106° F.
- ✓ An individual's response will vary when exposed to the same "heat positive" environment, depending on their recent activities.
- ✓ Great viability exists between individuals in their body's response to the same "heat positive" environment.

Spa not hot enough? Well.....

A number of deaths were reported in the Midwest that were associated with a heat wave that occurred in



July 1995. A post-event study was conducted in the Milwaukee, Wisconsin area and reported in the June 21, 1996 edition of the *Morbidity and Mortality Weekly Report* published by the Massachusetts Medical Society. When taken together, the maximum daily air temperature (91–103°F) and average daily humidity (70%) associated with this three-day climatic event were considered as contributing factors or primary cause of death of 91 people. Many of those who died were already "at risk": infants, the elderly, those on medications with heat-sensitizing side effects, the infirm, and people living a more solitary life.

At least one person was found dead sitting in front of an operating fan in a poorly-ventilated house where the inside air temperature was greater than 90°. Neighbors said that this elderly woman kept doors and windows closed despite the heat because of personal safety concerns.

Checking your water temperature accurately

- ✓ How do you check your water temperature? With a thermometer! How do you know it is accurate: You calibrate it to a known standard! In general, most digital thermometers are accurate to ± one degree. Most red alcohol or bi-metal probe thermometers are accurate to ± two degrees.
- ✓ A quick "field" calibration can be done with ice and a little tap water. Obtain a clean 8–12 oz. Container, ice (preferably cracked, crushed, or small cubes) and tap water. Pack the container almost full with the ice. Fill to just below the top of the ice with cool tap water. Stir occasionally for about five minutes. Depending on the type of thermometer you have, immerse or insert the probe of the thermometer into the middle of this ice bath, preferably keeping it at least one

What's the temperature you normally keep your spa? How long are users in your spa?

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Proposed revisions to wac 246-260, water recreation facilities (swimming pools, spas, wading and spray pools)

The Department of Health has developed revisions to the water recreation facility regulations in cooperation with the local health jurisdictions and representatives of the industry in a series of task force meetings over the past two years. The document can be found on the Internet at www.doh.wa.gov/ehp/ts/WatRec.htm.

Public input given through written comment will be accepted through December 31, 2002. Please submit your comments directly to the Office of Environmental Health and Safety, Local Health Support Section, PO Box 47825, Olympia WA 98504-7825. If you need further information, please contact Cyndi Free at (360) 236-3384 or Gary Fraser at (360) 236-3073.

(Continued from page 2)

inch from the bottom of the container. Keep it there until you get a consistent reading (one to five minutes). The thermometer should read 32°F in the ice water. Check with the manufacturer for "reset" instructions if your thermometer is more than ± two degrees from 32°F.

✓ Another way for you to "field-check" your thermometer is to check it against ours when an inspection occurs. Because of the importance of having relatively accurate thermometers to measure food, water and air temperatures, our office calibrates the thermometers we use every month!

Source: Thurston County Health Department

Good news!

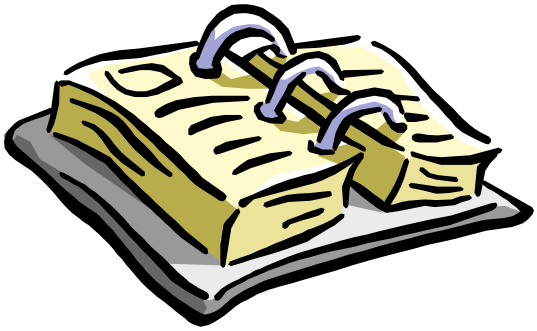
Most of the Health District 2003 annual operating permit fees for pool/spa facilities are lower than last year:

Operating Fee	2003 Cost	Difference
Seasonal Pool/Spa with Certified Pool Operator (CPO)	$297	$22 less
Seasonal Pool/Spa with no CPO	$380	$44 less
"Year-Round" Pool/Spa with CPO	$446	$84 less
"Year-Round" Pool/Spa with no CPO	$510	$125 less
Additional Pool/Spa	$199	$68 more
Pool/Spa Plan Review/Project Development	$834	$358 more

The fee changes were the result of an analysis conducted by an independent firm, based on direct and indirect costs related to the services provided.

Mark Your Calendars...

The next C.P.O. class will be held February 6 and 7 in Portland. More details will be coming later. For more information, please contact Bill Flewellen at the Pool & Spa House, (503) 620-9200.



SOUTHWEST WASHINGTON HEALTH DISTRICT

Spa notes...

1. Remember to drain the spa water completely based on the following formula:

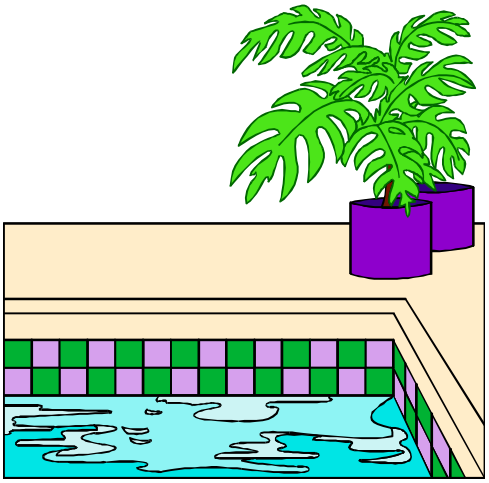
   Spa volume ÷ 3 ÷ average # of users/day = # of days between draining and cleaning

2. Another tool for determining when to change the water in a spa is a total dissolved solids (TDS) meter. The one we use is from Thermo Orion, model #114. If interested, call 1-800-225-1480.

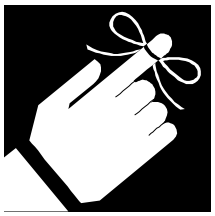
3. Check spa temperature daily. Keep temperature below 104.0°F. We recommend using a digital thermometer such as Deltatrak #11025: 1-800-962-6776, or Comark Pocketthерm: 1-800-555-6658.

4. Be sure main drain covers are secure. All covers should have screws to secure them.

5. Periodically check the emergency shutoff switch to make sure it turns off *all* pumps to the spa.



Healthy People Healthy Planet



Reminder:

Draft copies of your Operation Manual are past due! Please send them in.

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We're on the web!
www.swwhd.wa.gov